348

2-208.20

COMMENTS: RTC ROADS DEP AND RA WORK PLAN AND PREFINAL DESIGN PACKAGE

07/29/96

OEPA DOE-FN
10
COMMENTS

OhioEPA
State of Ohio Environmental Protection Agency
Southwest District Office
401 East Fifth Street
Dayton, Ohio 45402-2911
(513) 285-6357
FAX (513) 285-6249

P.- 348

J-2582

George V. Voinovich
Governor

July 29, 1996

RE: DOE FEMP
MSL 531-0297
HAMILTON COUNTY
COMMENTS:RtC ROADS DCP
AND RA WORK PLAN AND
PREFINAL DESIGN PACKAGE

Mr. Johnny Reising
U.S. Department of Energy, Fernald Area Office
P.O. Box 538705
Cincinnati, OH 45253-8705

Dear Mr. Reising:

This letter provides as an attachment Ohio EPAs comments on the Draft Remedial Action Work Plan for the Haul Road and Rerouted North Entrance Road and also comments on the Response to Comments for the Haul Road and Rerouted North Entrance Road Design Criteria Package and also comments on the Prefinal Design Package. For DOEs convenience, a copy of The Storm Water Pollution Prevention Plan: Checklist for Construction Sites (SWP3) has also been included.

If you have any questions, please contact Joe Bartoszek or me.

Sincerely,

Thomas A. Schneider
Fernald Project Manager
Office of Federal Facilities Oversight

cc: Jim Saric, U.S. EPA
Terry Hagen, FERMCO
Ruth Vandergrift, ODH
Mike Proffitt, DD&GW
Sharon McLellan, PRC
Manager, TPSS/DERR,CO
Dave Ward, GeoTrans

(Labeled (J)
PARTIAL
ACTION RECEIVED
TO DOE-0016-96
(07/31)

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Ohio EPA Comments on the Draft OU2 Remedial Action Work Plan for the North Haul Road and Rerouted North Entrance Road

1) Commenting Organization: Ohio EPA Commentor: DSW
Section #: 3.1.1 Pg #: 3-1 Line #: 11 Code:
Original Comment #:
Comment: Reference should be to *Rainwater and Land Development* (see section 6.1, page 6-2 of the Site-wide Stormwater Pollution Prevention Plan referred to on line 13).
Response:
Action:

2) Commenting Organization: OEPA Commentor: OFFO
Section #: 3.1.3 Pg. #: 3-2 Line #: 25-36 Code: c
Original Comment: 1
Comment: DOE has incorrectly cited Ohio Administrative Code (OAC) 3745-17-07(B)(4),(5), and (6) as the governing regulations for the particulate emissions from paved roads, unpaved roads and material storage piles. OAC 3745-31-05(A)(3) (please see page A-53 of the OU2 ROD) requires that new sources employ the best available technology (BAT). Although the BAT determination is made on a case-by-case basis, determinations of BAT for similar activities have time and again resulted in standards that are more stringent than the reasonably available control measures (RACM) that are required by OAC 3745-17-07. Please see the following examples.

paved roadways	OAC 3745-17-12(F)(2)	1 minute exceedence in any 60-minute period
unpaved roadways	3745-17-12(F)(1)	3 " " " " " "
material storage piles	3745-17-12(C)(2)	1 " " " " " "

Ohio EPA will be available to assist DOE in determining BAT for the new roads.

Ohio EPA comments on the RtC on the Haul Road and Rerouted North Entrance Road Design Criteria Package

3) Commenting Organization: OEPA Commentor: OFFO
Section #: Pg. #: Line #: Code:
Original Comment # 1
Comment: Ohio EPAs comment has been misunderstood or misconstrued. The intention of the comment was to evaluate the use of 'contaminated' concrete rubble in the aggregate base of the Haul Road not the Rerouted North Access Road. Since the Haul Road is designed to be a 'dirty' road, the Ohio EPA did not intend that the concrete rubble should be 'clean'. For this reason Ohio EPA considers DOEs reference to the Fernald Citizens's Task Force recommendation irrelevant to the discussion of the haul road. In the case of the North Access Road, Ohio EPA agrees that since the road will be permanent the construction materials should be clean.

Ohio EPA has consistently maintained the position that waste minimization should be an integral part of the remediation of the FEMP. DOE should continue to explore all appropriate means of reducing waste volume by recycling, re-use, innovative technologies, etc. The value of a smaller OSDF that would result from maximizing re-use/recycling should be included in the cost/benefit analysis.
DOEs determination of potentially available concrete appears to have been artificially underestimated by restricting the evaluation to only the Fire Training Facility stockpile. Including the concrete from Plant 7 would provide economy of scale.

Ohio EPA Comments Pre-Final Design Package

4) Commenting Organization: Ohio EPA Commentor: DSW
Section #: Drawings 92X-5900-G-0200 & 0201 Pg #: Line #: Code:
Original Comment #:
Comment: There is insufficient detail on the drawings for erosion and stormwater management. Drawings should include soils information, schedule of activity, stabilization measures for disturbed soils, limits of disturbance, inspection frequency, etc. (see Storm Water Pollution Prevention Plan (SWP3) Checklist for Construction Sites, Essential Components, Ohio EPA, May, 1995).
Response:
Action:

5) Commenting Organization: Ohio EPA Commentor: DSW
Section #: Drawings 92X-5900-G-0200 & 0201 Pg #: Line #: Code:
Original Comment #:
Comment: Areas that have check dams appear to be appropriate areas for sediment traps.
Response:
Action:

6) Commenting Organization: Ohio EPA Commentor: DSW
Section #: Drawing 92X-5900-G-204 Pg #: Line #: Code:
Original Comment #:
Comment: Check dams should conform to *Rainwater and Land Development.*
Response:
Action:
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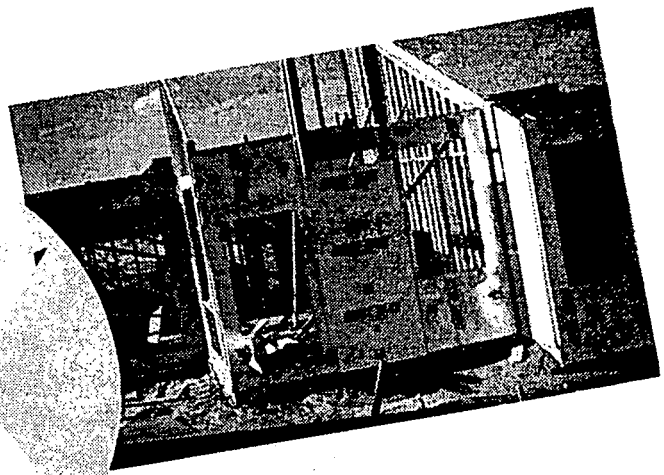
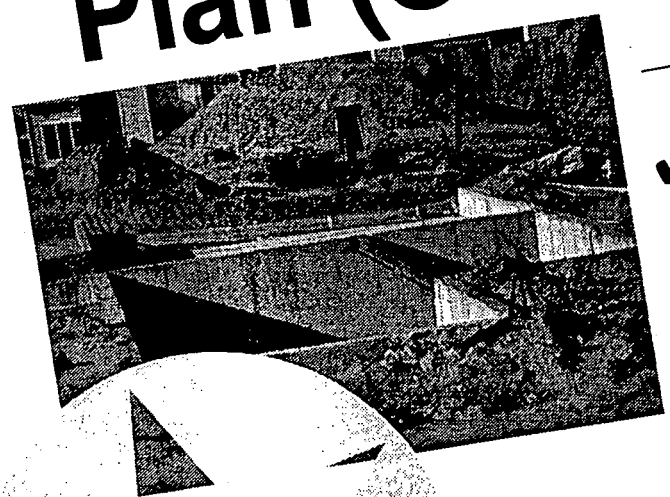
Ohio EPA
Division of Surface Water

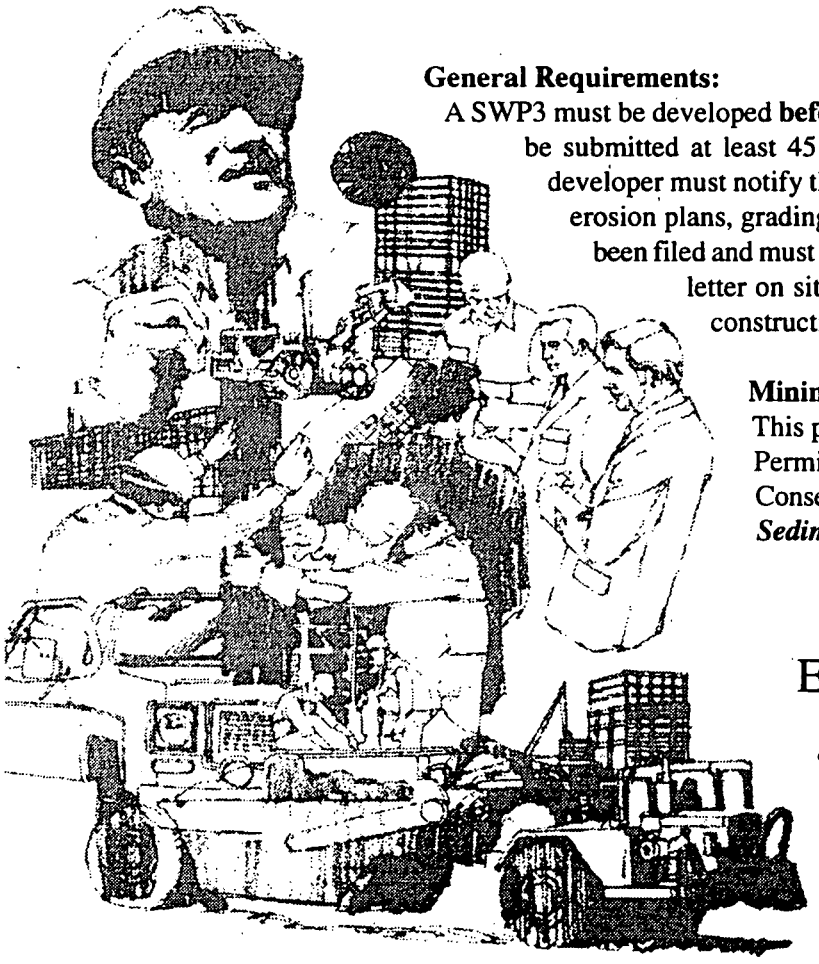


Storm Water Pollution Prevention Plan (SWP3)



✓ Checklist for
✓ Construction
✓ Sites

Storm Water Pollution Prevention Plan (SWP3) Checklist for Construction Sites



General Requirements:
A SWP3 must be developed **before** the Notice of Intent (NOI) is submitted. The NOI must be submitted at least 45 days prior to the start of any construction activity. The developer must notify the local governmental entity approving local sediment and erosion plans, grading plans or storm water management plans that an NOI has been filed and must post a copy of the NOI and Ohio EPA Director's acceptance letter on site. The SWP3 must be retained on-site at all times during construction activity.

Minimum Standards:
This plan must address all minimum components of the NPDES Permit and conform to the specifications of the Natural Resource Conservation Service (NRCS) handbook ***Water Management and Sediment Control for Urbanizing Areas.***

Essential Components

- **Vicinity Map** - Location map showing site in relation to surrounding area. Clearly indicate location of receiving streams/surface waters.

- **Clearing and Grading Plan** - Indicate the limits and show acreage of earth disturbing activity. Show borrow, spoil and topsoil stockpile areas. Include before and after contours with appropriate contour intervals. Delineate drainage watersheds, indicating acreage of each area.

- **Project Description** - Briefly describe the nature, purpose and scope of the land disturbing activity. This may be self evident from the plan. Include total area of site and acreage of individual phases if applicable. Also include a narrative describing the overall sediment and erosion control scheme for this site.

- **Soils Information** - Show locations of bedrock, unstable or highly erodible soils as determined by the local county soil survey and/or soil tests. Soil surveys are available from the local Soil and Water Conservation District. Other soils information such as permeability, perched water table, etc. may be mentioned.

- **Surface Water Locations** - Show locations of all lakes, ponds, surface drainage patterns, wetlands, springs, etc. on or within 200 feet of the site. If storm waters will be discharging into a municipal separate storm sewer system or into a storm water management structure such as a detention basin which is off the site, clearly indicate this on the plans.

- **Site Development** - Show locations of all existing and proposed buildings, roads, utilities, parking facilities, etc.

- **Schedule of Construction Activity** - Included in this should be a schedule for implementing temporary and permanent erosion and sediment control practices and storm water management facilities. The NPDES permit requires that all sediment ponds and perimeter barriers be implemented within 7 days of first grubbing. All sediment control structures must remain functional until upland areas are stabilized.

Information taken from the
OHIO EPA NPDES STORM WATER DISCHARGE GENERAL PERMIT FOR CONSTRUCTION ACTIVITY

STEPS IN REVIEWING A CONSTRUCTION SWPPP

Storm Water Pollution Prevention Plan = SWPPP

1.___ Based on the existing contours for the site, draw arrows indicating the direction of surface runoff **before** development begins. Identify low spots where water naturally accumulates, and any existing swales, ditches, streams, etc. (I use a BLUE highlighter.)

2.___ Identify the locations for all structural and non-structural sediment and erosion controls that have been included by the design engineer. Mark silt fence, inlet and catch basin protection, sediment ponds, straw bales, rock check dams, areas that will receive temporary or permanent seeding or mulching, etc. (I use an ORANGE highlighter.)

3.___ Mark all locations where the limits of disturbance have been identified, areas which will remain undisturbed, and areas that are to be protected, etc. (I use a GREEN highlighter.)

4.___ Evaluate the controls included on the plan. (I use a PINK highlighter.)

- Are the locations for the controls appropriate?
- Do they take into consideration the existing topography?
- Are controls included to address erosion beginning the first day earth is moved?
- Are sediment ponds, either temporary or permanent, included at low spots based on original contours?
- Do storm water detention ponds have appropriate modifications to the outlets to serve as sediment ponds?
- Are silt fences designated along the contours and at downslope locations?
- Can the silt fences POND water, allowing silt to settle?
- Are silt fences planned to not be overloaded? Rule-of-thumb says no more than 1/4 acre drainage area per 100 lineal feet of silt fence or 100 ft. upslope per 100 lf silt fence.
- Are curb inlet and catch basin protection planned for all inlets which are not routed to a properly modified sediment pond?
- Are stockpile (topsoil, other materials) locations planned with appropriate controls such as temporary seed or mulch, silt fence barriers, diversions routing runoff to sediment ponds, etc.?
- Are areas that will receive temporary seed or mulch noted on the plan?
- Are areas that will receive permanent vegetative cover noted on the plan?
- Are rock check dams planned to reduce velocities in areas of concentrated flow?
- Are gravel construction entrances planned to limit tracking of soil off-site?
- Have provisions been included to limit waste materials, trash, and debris on-site?

Caution: Straw bales and silt fence should not be planned for areas of concentrated flow such as ditches and streams.

5.___ Evaluate details included in the plan. All structural controls should be shown in a detail. Details of silt fence, rock checks, pond outlets, etc. must all be included with the plan.

6.___ Other requirements which must be included in the plan. In particular, all items in Part III.C.5.a. of the NPDES Storm Water Discharge General Permit for Construction Activity.

- For subdivisions, a detail showing the typical controls necessary for individual lots.
- Description of type of construction.
- Total area of the site and area to be disturbed.
- Runoff coefficients for pre- and post-construction conditions.
- Soils information and quality of any discharge of runoff from the site.
- A sequence or schedule of activities which indicates when the sediment and erosion controls are to be implemented relative to other construction activities.
- Name and/ or location of immediate receiving stream and subsequent receiving streams.
- Site map showing:
    - Limits of disturbance.
    - Existing and proposed contours and drainage patterns.
    - Surface waters within 200 feet of the site.
    - Existing and planned locations of buildings and utilities that may affect erosion and sediment control practices.
    - Erosion and sediment control practices.
    - Permanent storm water management practices to be used to control pollutants in storm water after construction operations have been completed.

7.___ All controls must be maintained and inspected on at least a weekly basis. Records of weekly inspections, and inspections after each rain of a half-inch or more, must be kept and made available upon request. These inspection records should include descriptions of the condition of all of the controls implemented on the site. Records also must include recommendations for maintenance of existing controls and recommendations for installation of any additional controls that may be needed to limit loss of sediment from the site.

If you have questions about the NPDES Storm Water Discharge General Permit for Construction Activities, please contact the storm water specialist at the Ohio EPA District Office, Division of Surface Water. Refer to the actual permit for a complete description of the requirements.

Anne Doster Glaze, Ohio EPA Storm Water Specialist
3/2/95 swpppres.wpd

SWPPP Plan Review

Examine how runoff will travel across the site.

Evaluate areas according to how water flows: sheet or concentrated flow?

Evaluate amounts of runoff, in terms of drainage areas on portions of the site?

Compare disturbed areas to proposed controls.

Are practices appropriately sited for best control of sediment?
Are they within their drainage area capacity?
Do they handle the right type of flow?
Does all the muddy water get to a sediment control and what happens to clean water from offsite?

Are there practices planned which will trap sediment from the very start of grading? Eg. Inlet protection vs sediment trap.

Are the practices the best appropriate in terms of efficiency, and low maintanence?

Are there cut and fill areas that may need special attention? Eg. Using pipe drop on an embankment.

Evaluate impacts to the natural drainage system, you know the streams, wetlands?

Is there a buffer provided for streams? Are riparian areas protected (notes should specify how)? Are sections of streams being piped or relocated?

Do the stormwater management measures treat stormwater pollution?

If stormwater management ponds are used for sediment trapping, is final cleanout specified?

Specifications and Detail Drawings:

Is there sufficient information shown through illustrations and explanations to instruct the contractor how to implement the practices?

Are there sufficient specifications for temporary and permanent stabilization, such as allowable seeding dates and rates of seed, soil amendments and mulch?

Do the specifications or notes include sufficient information about maintenance of each practice to assure continued performance?

Are there notes regarding implementing sediment controls and stabilizing idle areas?

- **Location of Practices** - Show locations of all erosion and sediment controls and storm water management practices. Water ponding facilities should be drawn to scale, with their volumes and area of the contributing watershed given.

- **Detail Drawings** - All structural practices should be explained with detail drawings of specifications. Installation specifications may also be necessary to aid contractors. Included should be outlet structures for retention or detention facilities and any special modification to these structures to aid in improved sediment trapping capability.
- **Land Stabilization Measures** - Provide specifications for temporary and permanent seeding, mulching, blanketing, etc. and also installation schedule for each practice. The NPDES permit requires that all areas at final grade or where construction activity has temporarily ceased for 45 days or longer be stabilized within 7 days of last activity. Velocity dissipation devices should be placed at the outfall of all detention or retention structures and along the length of any outfall channel as necessary to provide a non-erosive flow velocity from the structure to a water course. As recommended in the NRCS handbook, erosion control blankets and matting should be used to stabilize channels where the flow velocity is greater than 3.5 ft./sec, on steep slopes, on highly erosive soils and on areas slow to establish a vegetative cover.

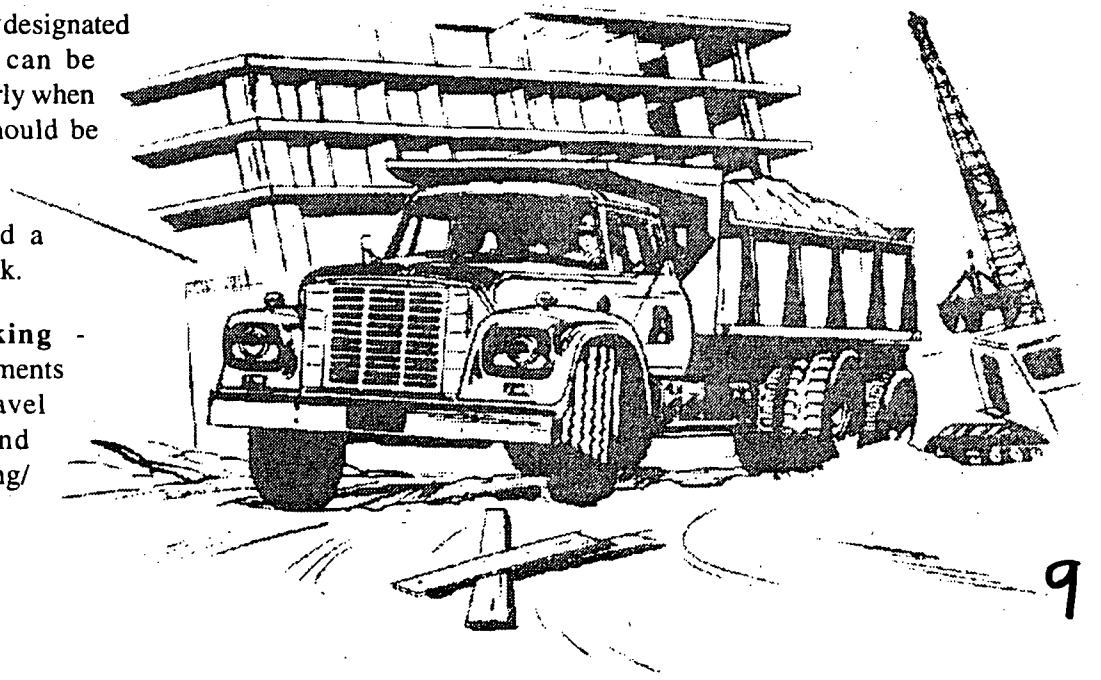
- **Special Notes for Critical Areas** - Include pertinent information regarding streambank stabilization, riparian corridors, buffer areas, stream restoration plans and wetland areas.

- **Maintenance and Inspections** - Provide notes and information regarding maintenance of each practice to assure continued performance. The NPDES permit requires that sediment and erosion controls be inspected once every 7 days and within 24 hours of 0.5" or greater rainfall. A written log of these inspections must become part of the SWP3. This log should indicate the date of inspection, name of inspector, weather conditions, observations, actions taken to correct any problems and the date action was taken.

- **Storm Water Runoff Considerations and Post-Construction BMPs** - Show the pre- and post-construction runoff coefficients including method used to calculate runoff. Include a narrative describing post-construction storm water management BMPs such as detention basins, grassed filter strips or wetlands and show the locations of all such storm water management facilities. Include vegetation to remain (trees, buffer areas, etc.).

- **Location and Volume of Sediment Ponds** - These calculations should be shown for all temporary or permanent sediment traps/ponds and any retention/detention facilities to be used for this purpose. All ponds used for the purpose of trapping sediments must have a volume of 67 cubic yards per acre of total drainage area to the pond (not disturbed area). Although there is no stipulated standard, trapping efficiency should be at least 75%.

- **Disposal of Solid, Sanitary and Toxic Waste** - Solid, sanitary and toxic waste must be disposed of in a proper manner in accordance with local, state and federal regulations. It is prohibited to burn, bury or pour out onto the ground or into storm sewers any solvents, paints, stains, gasoline, diesel fuel, used motor oil, hydraulic fluid, antifreeze, cement curing compounds and other such toxic or hazardous wastes. Wash out of cement trucks should occur in a diked, designated area where the wastewater can be collected and disposed of properly when they harden. Storage tanks should be located in diked areas away from any drainage channels. The diked area should hold a volume 110% of the largest tank.



- **Off-Site Sediment Tracking** - Minimize such tracking of sediments by vehicles by installing gravel construction entrances and conducting scheduled sweeping/ good housekeeping activities.

A Note About Sublots

For developments with sublots, NPDES permit coverage must be maintained on the lot until it reaches final stabilization.

- *If the developer decides to build structures within the development or opts to maintain permit responsibility on lots where structures are being built*, a detail drawing of a typical sublot showing standard BMPs with notes specifying measures for critical areas must be included in the SWP3.

- *If a developer opts to parcel off permit responsibility to the new lot owner once the lot is sold*, the new lot owner must submit an Individual Lot Notice of Intent at least 7 days prior to initiating construction. The developer must allow the new owner access to the developer's SWP3. The new owner then must maintain and/or install any lot specific sediment controls and develop a site map indicating the location of BMPs. *Thus, the new lot owner is now responsible for complying with the NPDES permit on his or her lot.*

A Note About Final Stabilization

Once a site reaches final stabilization, a permittee must file a Notice of Termination (NOT). A NOT is to be filed when **all** of the following criteria are met on all disturbed areas within the development for which the NOI has been filed:

(1) A perennial, vegetative cover (or other comparable permanent stabilization practice) has grown to a 70% density throughout the entire disturbed area.

(2) All temporary sediment and erosion controls have been removed and disposed of properly.

(3) All trapped sediment has been permanently stabilized to prevent further erosion.

(4) All construction activities have ceased.

The NOT is to be filed within 45 days of when a site reaches final stabilization.

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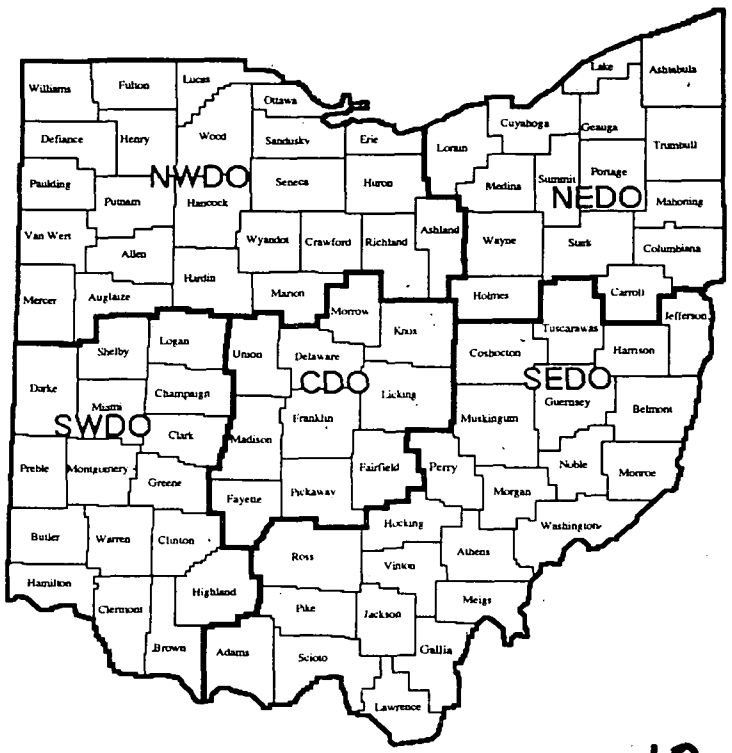

Revised May 1995

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